

IDAHO DEPARTMENT OF FISH & GAME

Jerry M. Conley, . Director

MULLAN, . HATCHERY

Annual Report



1 October 1981 - 30 September 1982

by

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TABLE OF CONTENTS

	<u>Page</u>
ABSTRACT	1
OBJECTIVES	2
INTRODUCTION	2
FISH PRODUCTION	3
FISH HEALTH	3
FISH TRANSFERS	5
SPAWNTAKING OPERATIONS	5
FISH FEED UTILIZED	5
FISH RELEASES	5
HATCHERY IMPROVEMENTS	5
SPECIAL STUDIES	10
MISCELLANEOUS ACTIVITIES	10
ACKNOWLEDGEMENTS	10

LIST OF TABLES

Table 1. Fish production 1 October 1981 - 30 September 1982	4
Table 2. Incubation results	4
Table 3. Fish transfers 1 October 1981 - 30 September 1982	6
Table 4. OMP fed 1 October 1981 - 30 September 1982	7
Table 5. Fish released 1 October 1981 - 30 September 1982	8

ABSTRACT

Mullan Hatchery produced cutthroat trout fingerlings for Priest Lake and kokanee salmon fry for Pend Oreille Lake and Priest Lake. Hayspur Hatchery transferred 80,270 catchable-size rainbow trout to Mullan for redistribution in the southern part of Region 1.

The Mullan Hatchery crew provided support to the kokanee spawning activities at Granite Creek on Pend Oreille Lake and incubated 3,924,860 of these eggs.

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OBJECTIVES

The objectives of the Mullan Hatchery are to:

1. Receive catchable rainbow trout from Hayspur Hatchery and redistribute them in the southern part of Region 1.
2. Rear 100,000 cutthroat trout to be released in the 1982-1983 fish year as two-year-old fish.
3. Release 3-to-6-inch cutthroat trout into Granite Creek, a tributary of Priest Lake.
4. Provide support for the kokanee salmon spawntaking activities at Granite Creek on Pend Oreille Lake.
5. Receive green kokanee salmon eggs from Pend Oreille Lake to be hatched and released in Pend Oreille Lake and Priest Lake.

INTRODUCTION

Mullan Hatchery is located four miles east of Mullan, Idaho, and consists of:

Rearing Units:

3 raceways - 4' x 65' x 2' deep
2 raceways - 6' x 65' x 1'8" deep
1 raceway - 12' x 65' x 1'8" deep
2 raceways - 6' x 65' x 3' deep
1 pond - 30' x 168' x 3' deep
1 pond - 25' x 132' x 3' deep
1 pond - 35' x 78' x 3' deep
19 vats - 13'6" x 2'4" x 1'8" deep

Buildings:

1 hatchery building with living area on the second floor
1 residence and garage for the temporary laborer
1 log shop building
1 log storage building
2 single car garages

The hatchery receives water from the South Fork of the Coeur d'Alene River, the Little North Fork of the Coeur d'Alene River, and the water for the incubators and domestic water comes from the small, unnamed creek to the south of the hatchery. The hatchery requires three-to-four cfs from all three sources to operate. During the months of August, September, and October the water flow becomes critically low at times. The water temperature ranges from 33° F in January, to 58° F in August, with only 68 days in an average year when the water temperature will average 50° F or higher.

The Mullan Hatchery buildings and grounds are owned by the Shoshone County Sportsman Association. Shoshone County provided a budget of \$7,400 to pay for the maintenance of the buildings and grounds. The Idaho Department of Fish and Game staffs the permanent personnel and provides the trucks and fish production cost for the station.

FISH PRODUCTION

Kokanee salmon, Kootenai River rainbow trout, and cutthroat trout were reared during the 1981-1982 fish year (Table 1). The kokanee were from green eggs, the Kootenai River rainbow were from the 1979 and 1980 brood years, and the cutthroat were from the 1980 brood year.

The kokanee that were produced came from the late spawning kokanee in Pend Oreille Lake that were trapped at Granite Creek. The hatchery received 3,924,860 green eggs in December, 1981, that eyed-up and were picked in March and April and hatched out in May (Table 2).

FISH HEALTH

There was only one outbreak of disease during the fish year, which occurred when the one-year-old cutthroat broke out with what appeared to be cold-water disease and were successfully treated in twenty days with a combination of TM-50 (terramycin) in the feed, a Purina 4X drip, and by lowering their density in the raceway. Out of the 117,804 fish on hand, 10,770 were lost, for a 9.0% mortality.

Table 1. Fish production 1 October 1981 - 30 September 1982.

Species	Pounds on hand first of year	Pounds on hand end of year	Pounds released	Pounds gained
Cutthroat trout	1,835	1,012	3,101	2,278
Kootenai River rainbow trout	706	0	1,475	769
Kokanee salmon	0	0	439	439
Total pounds produced:				3,486

4

Table 2. Incubation results.

Species	Total eggs	Total eye-up	% Eye-up
Kokanee salmon	3,924,860	3,596,000	92

FISH TRANSFERS

All of the Kootenai River rainbow trout were transferred to the University of Idaho at their hatchery on Hayden Creek to be reared as broodstock (Table 3).

SPAWNTAKING OPERATIONS

The Mullan Hatchery crew spent 15 man-days providing support to the spawn-taking activities at the fish trap on Granite Creek on Pend Oreille Lake and brought 3,924,860 green kokanee salmon eggs back to the hatchery to be incubated.

FISH FEED UTILIZED

Oregon Moist Pellet feed (OMP) was fed to all of the fish that were produced at the hatchery (Table 4). The catchable rainbow trout for redistribution from Hayspur Hatchery were fed 400 pounds of Rangens 5/32 dry pellets as a maintenance diet.

The fish were fed 6,500 pounds of feed to produce 3,486 pounds of gain. This is a feed conversion of 1.88 at a cost of \$0.71 for each pound of gain.

FISH RELEASES

Hayspur Hatchery transferred six loads of catchable rainbow trout to Mullan between 11 May 1982 and 8 September 1982 that were released in the southern part of Region 1. The fall chinook salmon and bluegill were not brought on to the hatchery. The fall chinook were picked up from the tanker in Coeur d'Alene and the bluegill were picked up at Sand Dunes State Park, where a flyfishing club from Boise held a spring fish-in.

Fish released during the fish year are summarized in Table 5.

HATCHERY IMPROVEMENTS

This year the hatchery crew repaired incubator trays, replaced a rotted ceiling joist, and some ceiling boards in the hatchery, drained the domestic water reservoir and the reservoir on the Little North Fork of the Coeur d'Alene River, and removed silt and debris from them.

The five small raceways were sandblasted, painted with epoxy paint, and sealed with silicone sealant so that they could be used in the future to rear fry.

Table 3. Fish transfers 1 October 1981 - 30 September 1982.

Species	Brood year	Fish per pound	Pounds	Number	Destination
Kootenai River rainbow trout	1979	3.74	1,350	5,049	Hayden Creek University of Idaho
Kootenai River rainbow trout	1980	16.00	<u>125</u>	<u>2,000</u>	Hayden Creek University of Idaho
Totals			1,475	7,049	

Table 4. OMP fed 1 October 1981 - 30 September 1982.

Size	Pounds	Price	Total price
1/64	150	\$0.38 \$	57.00
1/32	150	.34	51.00
1/32	250	.37	92.50
3/64	500	.38	190.00
1/16	650	.38	247.00
3/32	2,000	.38	760.00
1/8	<u>2,850</u>	.38	<u>1,083.00</u>
Total pounds:	6,550	Total expense:	\$2,480.50

Table 5. Fish released 1 October 1981 - 30 September 1982.

Name of water	Catalog #	Pounds	Number	Origin	Size
<u>Rainbow Trout</u>					
Coeur d'Alene River	03-22	5.800	19.980	Hayspur Hatchery	Catchable
N.F. Coeur d'Alene R.	03-22-08	1,800	5,560		
S.F. Coeur d'Alene R.	03-22-06	1,550	4,370		
St. Joe River	03-23	2,000	6,400		
St. Maries River	03-23-01	1,000	3,200		
N.F. St. Joe River	03-23-31	2,400	7,740		
Marble Creek	03-23-21	400	1,280	"	
Big Creek	03-23-20	400	1,280		
Fernan Lake	03---0106	1,500	4,800		
Twin Lakes	03---0103	1,200	3,840		
Hauser Lake	03---0101	2,250	11,890		
Lower Glidden Lake	03---0123	700	1,880		
Elsie Lake	03---0119	450	1,440		
Day Pond	03---0120	800	1,640		
Gold Creek Pond	03-22-0016	450	1,615	"	
Eagle Creek Pond	03-22-20	<u>1,000</u>	<u>3,155</u>		
Total rainbow			26,700	80,270	
<u>Cutthroat Trout</u>					
Fish Lake	07---0196	9.8	3,969	Mullan	405/1b
Fish Lake	07---0196	66.6	1,998		30/1b
Granite Creek	02-10	2,600	62,910		27/1b
Priest Lake	02---0140	285	7,125		25/1b
Jewell Lake	02---0155	<u>140</u>	<u>3,500</u>		25/1b
Total cutthroat			3,101.4	79,502	

Table 5 (Continued).

Name of water	Catalog #	Pounds	Number	Origin	Size
<u>Kokanee Salmon</u>					
Pend Oreille Lake	02---0195	356	1,480,604	Mullan	4,159/1b
Priest Lake	02---0140	116	451,240	"	3,890/1b
S.F. Coeur d'Alene R.	03-22-06	<u>21</u>	<u>87,339</u>		4,159/1b
	Total kokanee	493	2,019,183		
<u>Fall Chinook Salmon</u>					
Fernan Lake	03---0106	60	1,020	Hagerman	17/1b
Bull Run Lake	03---0116	60	1,020		17/1b
Rose Lake	03---0115	<u>60</u>	<u>1,020</u>		17/1b
	Total fall chinook	180	3,060		
<u>Bluegill</u>					
kelso Lake	02---0149	<u>100</u>	<u>400</u>	Sand Dunes State Park	4/1b
	Total bluegill	100	400		

SPECIAL STUDIES

The kokanee salmon that were released into Priest Lake were fed TM-50 (terramycin) at the rate of 10% top dressed on the OMP starter mash for fifteen days. This gave a very strong mark when tested with ultraviolet light five days after the treatment ended.

The hatchery provided catchable rainbow trout and manpower to check live boxes to the EPA when they ran a water quality study on the South Fork of the Coeur d'Alene River in September 1982.

MISCELLANEOUS ACTIVITIES

The hatchery and grounds are owned by the Shoshone County Sportsman Association so all of their meetings were attended. This kept them updated on all of the activities at the hatchery.

ACKNOWLEDGEMENTS

Hatchery staffing during the fish year included:

Ivan Talbott, Fish Hatchery Superintendent I
Mary Jutila, Temporary Laborer
Dan Zingler, CETA
Marvin Storjohnn, CETA
Mark Cornell, CETA